

**TABLE 4.3 - MARKET SHARE OF RESIDENTIAL LONG DISTANCE CARRIER DIRECT-DIAL
TOLL MINUTES BY STATE**

	1996					1995				
	AT&T	MCI	SPRINT	OTHERS	MINUTES	AT&T	MCI	SPRINT	OTHERS	MINUTES
Alabama	58.5 %	12.4 %	6.4 %	22.7 %	11,787	67.3 %	16.0 %	5.7 %	11.0 %	16,385
Arizona	49.5	14.5	17.5	18.5	14,300	76.2	13.9	3.0	6.9	26,871
Arkansas	58.8	22.8	4.8	13.7	5,802	52.9	20.9	4.6	21.6	6,936
California	68.3	15.4	7.5	8.9	104,144	70.9	17.3	7.6	4.1	96,752
Colorado	58.4	16.5	6.3	18.8	14,565	59.6	21.4	4.3	14.7	20,972
Connecticut	35.8	37.8	5.4	20.9	8,674	76.0	15.0	1.3	7.7	11,673
Delaware	45.0	11.9	16.1	27.1	1,544	77.3	11.4	0.0	11.3	2,387
Dist. of Columbia	61.0	32.8	0.0	6.2	3,690	75.6	14.5	0.0	10.0	1,334
Florida	61.1	14.1	9.8	15.0	61,047	71.6	13.4	6.9	8.1	72,362
Georgia	69.1	15.7	3.9	11.3	23,987	72.4	13.3	7.0	7.3	19,640
Idaho	73.3	7.4	4.7	14.6	3,591	69.4	18.4	6.0	6.3	5,638
Illinois	61.3	17.3	10.0	11.4	38,738	70.4	22.3	2.1	5.3	45,772
Indiana	68.1	9.7	6.8	15.3	18,238	76.0	10.2	2.6	11.1	19,449
Iowa	61.8	14.2	1.7	22.3	13,762	67.1	15.5	11.3	6.2	23,683
Kansas	46.4	17.2	12.9	23.5	10,014	71.2	11.8	4.2	12.8	12,259
Kentucky	71.4	11.8	0.7	16.1	12,504	71.1	17.1	1.6	10.2	12,544
Louisiana	70.2	7.7	2.9	19.2	9,366	63.9	21.0	10.9	4.2	15,285
Maine	40.9	11.8	0.0	47.3	2,037	56.7	18.6	0.0	24.7	4,986
Maryland	49.6	25.9	7.1	17.3	16,987	68.7	16.4	4.1	10.9	19,365
Massachusetts	67.0	11.5	3.3	18.2	10,437	74.8	9.8	5.2	10.2	21,182
Michigan	56.4	22.7	3.2	17.7	26,766	62.4	15.8	4.8	17.0	38,142
Minnesota	48.7	27.0	8.6	15.6	17,077	56.4	26.2	4.9	12.6	21,698
Mississippi	57.7	7.1	5.3	30.0	5,276	92.5	5.4	0.2	1.9	6,860
Missouri	51.6	13.7	1.3	33.4	16,546	74.9	14.7	5.3	5.1	16,175
Montana	63.8	9.4	0.0	26.8	4,125	63.2	30.8	0.0	6.0	6,185
Nebraska	60.0	24.9	3.3	11.9	5,094	61.8	13.4	6.8	18.0	6,534
Nevada	61.3	13.0	23.4	2.3	6,279	65.8	12.0	8.4	13.8	5,605
New Hampshire	64.0	9.5	14.9	11.6	4,919	76.4	5.2	8.1	10.2	4,870
New Jersey	76.1	10.2	4.5	9.2	23,931	79.6	13.3	3.0	4.1	26,503
New Mexico	58.8	9.3	13.0	18.9	6,425	74.0	8.0	7.2	10.8	9,266
New York	64.6	18.0	6.9	10.4	54,840	68.2	18.3	6.7	6.8	76,245
North Carolina	58.1	15.2	9.0	17.7	24,741	76.9	10.0	7.6	5.5	31,630
North Dakota	35.8	23.0	0.0	41.2	1,550	67.2	6.3	1.6	24.9	4,837
Ohio	63.2	16.4	5.7	14.7	31,973	71.8	9.7	4.0	14.5	40,054
Oklahoma	38.9	17.0	17.1	27.1	5,272	66.4	22.3	3.4	7.9	12,569
Oregon	62.0	16.8	4.9	16.3	11,164	68.0	9.2	6.9	15.8	14,035
Pennsylvania	56.8	20.2	2.4	20.6	34,951	60.6	16.4	5.3	17.7	58,224
Rhode Island	61.9	22.1	3.8	12.3	2,783	88.3	9.8	0.0	1.9	2,447
South Carolina	59.0	14.9	13.4	12.7	9,329	74.4	12.4	7.2	6.0	14,387
South Dakota	72.8	17.1	0.0	10.1	1,976	54.6	32.2	2.8	10.4	7,173
Tennessee	64.7	16.3	5.2	13.9	24,508	75.2	11.6	4.4	8.9	24,362
Texas	58.3	15.2	9.9	16.6	59,461	57.8	23.9	7.3	11.1	58,182
Utah	41.6	18.1	14.5	25.8	3,923	68.9	18.1	9.6	3.3	7,160
Vermont	80.2	0.0	19.8	0.0	1,190	34.6	39.9	0.6	24.9	2,677
Virginia	64.0	20.2	4.8	11.0	24,394	67.1	15.7	11.6	5.7	30,744
Washington	58.3	10.4	6.7	24.6	17,264	56.6	15.9	13.0	14.5	15,038
West Virginia	65.4	9.7	2.0	23.0	3,896	78.3	13.3	0.0	8.4	6,186
Wisconsin	55.2	22.7	4.1	18.0	20,015	70.7	17.1	2.7	9.5	28,385
Wyoming	80.9	7.3	0.0	11.7	939	65.1	0.0	31.5	3.4	1,588
Total	61.3	16.4	7.0	15.4	835,817	68.6	16.2	5.8	9.4	1,033,236

Source: PNR and Associates, Bill Harvesting II and III.

5. THE INTERNATIONAL LONG DISTANCE TELEPHONE MARKET

Prior to 1985, AT&T was the monopoly provider of international long distance telephone service for U.S. customers. Since 1985 new firms have entered the international long distance business, reducing AT&T's share of this market.

Table 5.1 summarizes the portion of international toll revenues directly attributable to international telephone service. The information in this table is from reports to the FCC by international long distance carriers and does not include international revenues generated from sources such as telegraph, telex, and private lines. In this respect the figures reported in Table 5.1 are different from those shown in Table 3.3.

In 1996 AT&T's international telephone revenues were two and one-half times their 1985 values. International telephone market revenues for the entire industry have grown even faster during this time. In 1996 industry revenues were nearly \$18 billion, five times 1985 industry revenues. Consequently, AT&T's formerly monopolized share of the market has fallen to 48%. At the same time MCI has amassed a 20% share of this market followed by Sprint with 9%. More recently WorldCom, who had no international revenues in 1985, has increased its share of the international long distance market to over 4%.

TABLE 5.1 - INTERNATIONAL TELEPHONE SERVICE

	REVENUES FOR FACILITIES-BASED AND RESALE SERVICE (DOLLARS AMOUNTS SHOWN IN MILLIONS)						MARKET SHARES				
	AT&T 1/	MCI 2/	SPRINT 2/	WORLDCOM	OTHER 3/	TOTAL	AT&T	MCI	SPRINT	WORLDCOM	OTHER
1984	\$3,197					\$3,197	100.0 %				
1985	3,392	\$78	\$18			3,487	97.3	2.2 %	0.5 %		
1986	3,738	197	70			4,004	93.3	4.9	1.7		
1987	4,307	305	127		\$10	4,750	90.7	6.4	2.7		0.2 %
1988	5,050	517	219		13	5,800	87.1	8.9	3.8		0.2
1989	5,693	795	387		26	6,901	82.5	11.5	5.6		0.4
1990	6,361	1,175	464		43	8,042	79.1	14.6	5.8		0.5
1991	6,962	1,552	692	\$5	325	9,536	73.0	16.3	7.3	0.1 %	3.4
1992	7,314	2,113	849	40	374	10,690	68.4	19.8	7.9	0.4	3.5
1993	7,482	2,814	1,076	100	472	11,944	62.6	23.6	9.0	0.8	4.0
1994	7,984	3,008	1,285	338	759	13,375	59.7	22.5	9.6	1.9	6.3
1995	8,425	4,019	1,357	479	1,465	15,745	53.5	25.5	8.6	3.0	9.3
1996	8,559	3,592	1,581	775	3,209	17,715	48.3	20.3	8.9	4.4	18.1

- 1/ AT&T 1984-1990 data are from 43.61 international traffic reports, minus revenue for Alaska, Hawaii, and Puerto Rico, plus revenue for Canada and Mexico. AT&T data for Canada and Mexico were taken from Appendices B & C of Trends in the International Telecommunications Industry.
- 2/ MCI and Sprint 1985-1990 data are from 43.61 international traffic reports, less data for Alaska. MCI and Sprint were not required to report data for Canada and Mexico. For these years, non-AT&T traffic estimated in Appendices B & C of Trends in the International Telecommunications Industry have been apportioned between MCI and Sprint based on reported international revenues.
- 3/ Data for 1984-1990 exclude international calls placed from or to Alaska, Hawaii, and Puerto Rico. Data for 1984 do not include about \$5 million of calls handled by the Cuban American Telephone and Telegraph Company.

APPENDIX 1: METHODOLOGICAL AND SOURCE NOTES

1. Interstate Switched Access Minutes

Industry information on switched access minutes is routinely received from NECA on March 15, June 15, September 15, and December 15 each year. NECA's estimates of total industry minutes are continually revised as additional information is received. AT&T also files information on its switched minutes on March 15, June 15, September 15, and December 15 each year. AT&T includes the access minutes it sells to other carriers in its counts.

An appendix to *AT&T's Share of the Interstate Switched Market*, released by the FCC on October 22, 1987 (mimeo No. 312), identifies and discusses data sources, technical considerations, and questions of market definition. As indicated there, if certain information were available, a number of minor improvements might be made in the methodology used to calculate the market share ratio involving minutes of use. On balance, however, these changes would make little difference in the market share calculated for AT&T.

Access minutes on the originating end of interstate or foreign calls are measured from the time the originating end user's call is delivered by the telephone company and acknowledged as received by the interexchange carrier's facilities connected with the originating exchange. On the terminating end of interstate or foreign calls, usage is measured from the time the call is received by the end user in the terminating exchange. Timing of usage at both the originating and terminating end of interstate or foreign calls terminates when the calling or called party disconnects, whichever event is recognized first in the originating and terminating end exchanges, as applicable.

800 or 888 calls generate access minutes only on the originating end, but these minutes are typically billed and reported as terminating minutes. WATS calls generate access minutes only on the terminating end. Only originating access minutes are measured for international calls exiting the United States while only terminating access minutes are measured for calls entering the United States.

Terminating minutes serve only as an approximation to conversation minutes as a result of the manner in which terminating minutes are measured. For example, for international calls exiting the United States terminating access minutes are not measured and for some personal 800 number calls terminating minutes are actually counted twice.

On September 24, 1997, AT&T filed revised figures for their interstate switched access minutes from the first quarter of 1993 through the first quarter of 1997. On September 26, 1997, AT&T submitted the following explanation to account for the revised figures: *"The AT&T software process that gathered and computed the originating and terminating interstate CCL access minutes of use, and compensated for associated call setup times, completion ratios and ring before answer times for AT&T's quarterly Minutes of Use Report to the FCC improperly classified some of AT&T's products. The corrected historical data that was provided with this quarter's report corrects for that problem."*

2. Presubscribed Lines

Information on the number of lines presubscribed to each long distance carrier was collected by NECA because FCC rules required NECA to recover certain expenses from the larger long distance carriers. This information was previously received twice a year, about six months after the period being reported. Until recently, collecting information on the number of presubscribed lines served by each long distance carrier was necessary in connection with the universal service program. Following passage of the Telecommunications Act of 1996, the FCC changed its rules on universal service. As a result, information for December 1996 is the last presubscribed line data collected by NECA. Thus, the presubscribed line data presented in this report will not be updated in future reports.

3. Toll Revenues

The revenue information shown in Table 3.1 is reported annually to the FCC. The revenues received by long distance carriers that are too small to file revenue reports with the FCC are estimated by the FCC staff. Quarterly revenue information shown in Table 3.4 is based on reports to stockholders. For AT&T, MCI, Sprint, and WorldCom, we have generally used revenues as first reported to stockholders rather than revenues as later restated. For all other carriers, a regression line was calculated from the annual data in Table 3.1. The regression smooths the data and provides quarterly figures.

Accounting differences have caused some inconsistencies in the revenue measures over time. For example, AT&T, which has been subject to the FCC's Uniform System of Accounts (USOA), and MCI, which has chosen to report in a similar manner, have deducted settlement payments to foreign correspondents and added settlement receipts from foreign correspondents before reporting revenues to the FCC, but have not netted out settlement payments and receipts when reporting revenues to stockholders. When carrier reporting detail permits, inconsistencies are eliminated. In this issue both AT&T and WorldCom's shareholder revenues have been restated to exclude local and other non-toll revenues. As a result, the figures reported in Table 3.4 differ from previously published figures. Further detail in carrier reporting would allow us to eliminate further inconsistencies, but would have little impact on market share ratios. Interested parties should be cautioned, however, that any adjustments or reporting revisions could increase or decrease the individual market shares shown in Table 3.1 for all long distance carriers.

The total toll revenue figures reported in Table 3.3 are taken from Table 3.1. The total international revenue figures shown in Table 3.3 are taken from Table 1 in the *Trends in the International Telecommunications Industry* report published by the FCC. This revenue information includes facilities-based, facilities-resale, and pure resale revenue. Prior to 1991 these different sources of revenue were not reported separately. However, since 1991 pure resale has been reported separately from facilities generated revenues. Beginning in 1993, domestic revenues are divided between the intrastate and interstate jurisdictions based on revenue divisions reported in *Telecommunications Industry Revenue: TRS Fund Worksheet Data*.

5. The International Long Distance Telephone Market

The international telephone service revenue figures shown in Table 5.1 are taken from Table 2 in the *Trends in the International Telecommunications Industry* report published by the FCC.

APPENDIX 2: AT&T'S MARKET SHARE

NECA revisions of total industry minutes affect the market share calculated for AT&T because total minutes represent the denominator of the market-share ratio. In Chart A2.1, AT&T's share of interstate switched minutes (based on current information) is compared with its market share as first published. As shown there, AT&T's market share is usually highest initially and then decreases after NECA revises the estimates.

Chart A2.2 is a composite of the alternative measures of AT&T's market share based on minutes, lines and revenues. By all measures AT&T's share of the long distance market has decreased significantly since 1984.

Chart A2.1 - AT&T Share of Interstate Minutes

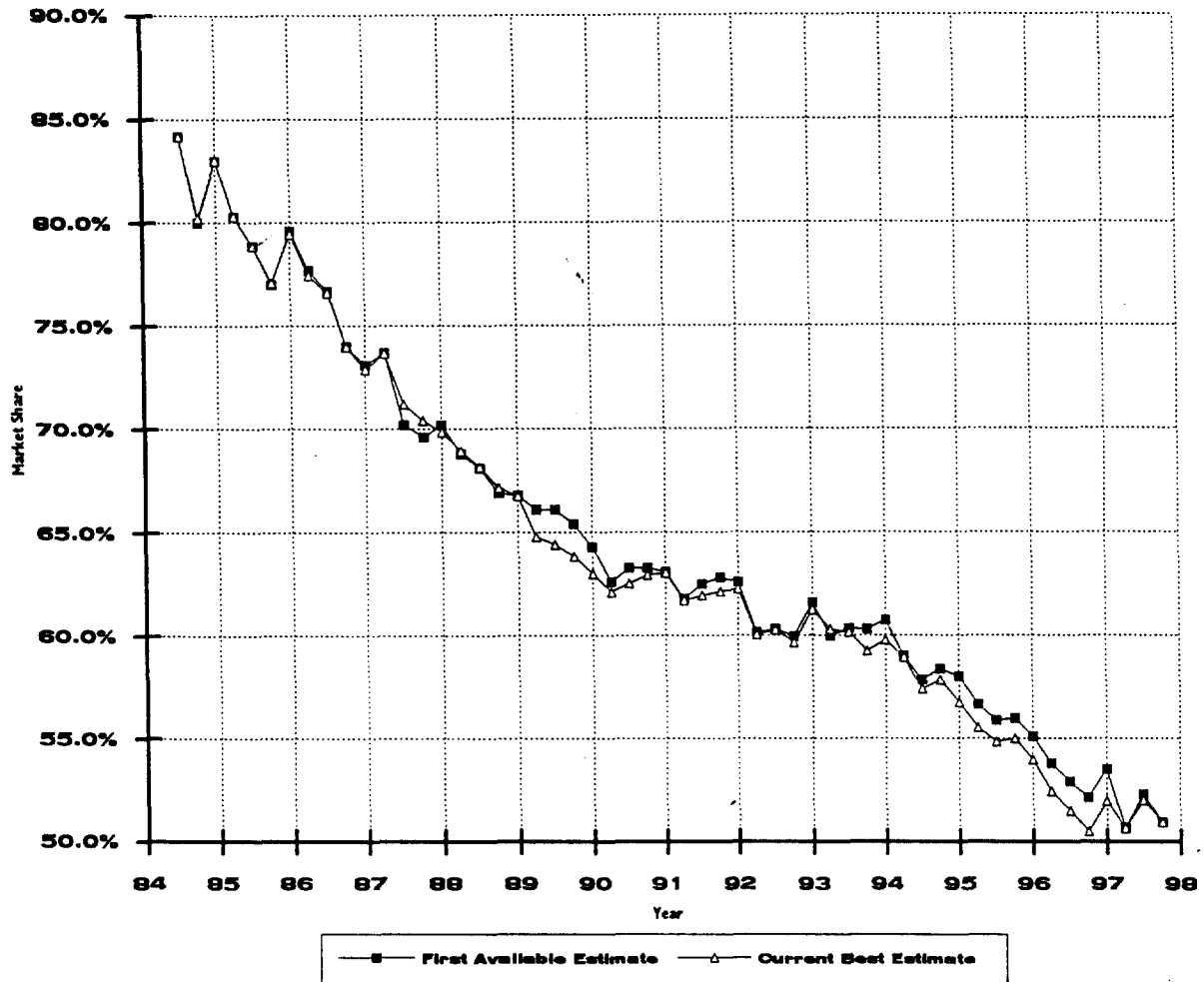


Chart A2.2 - Indicators of AT&T Market Share

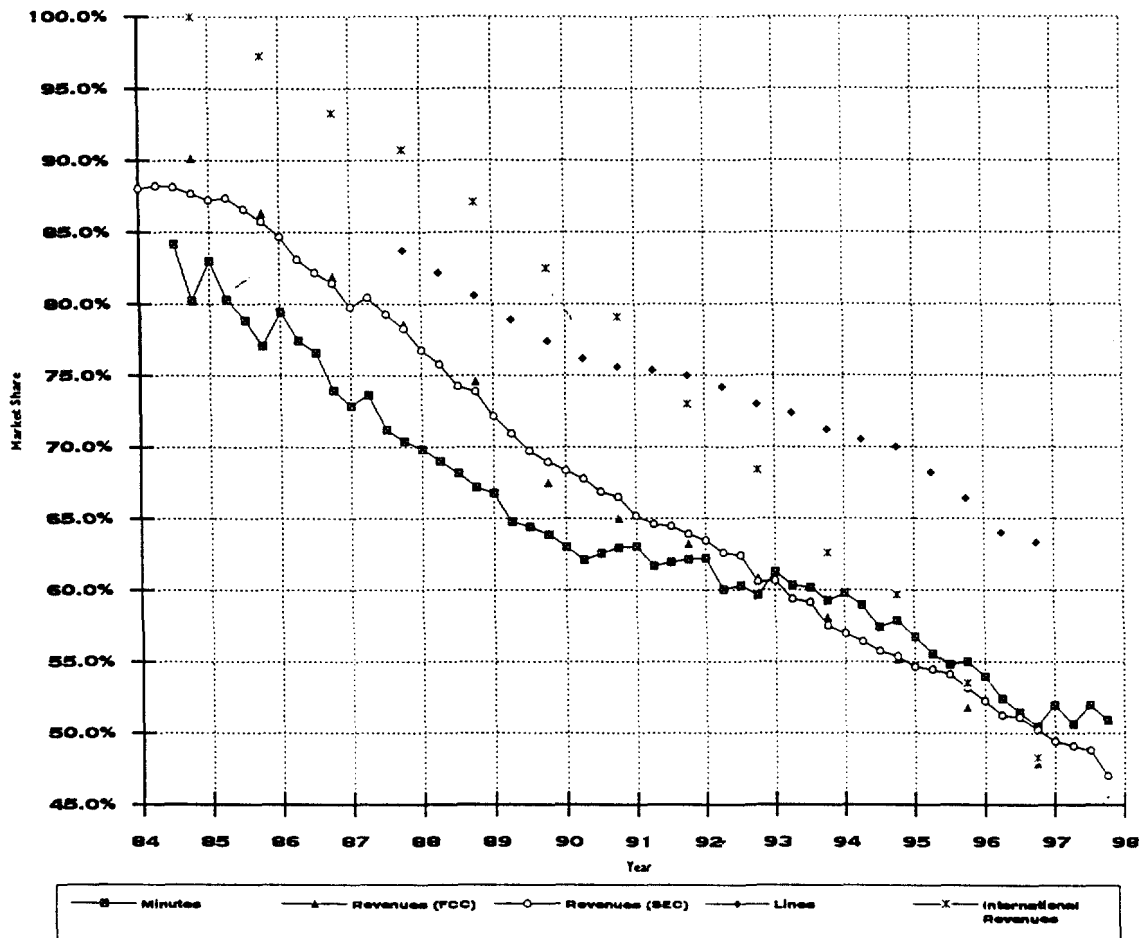
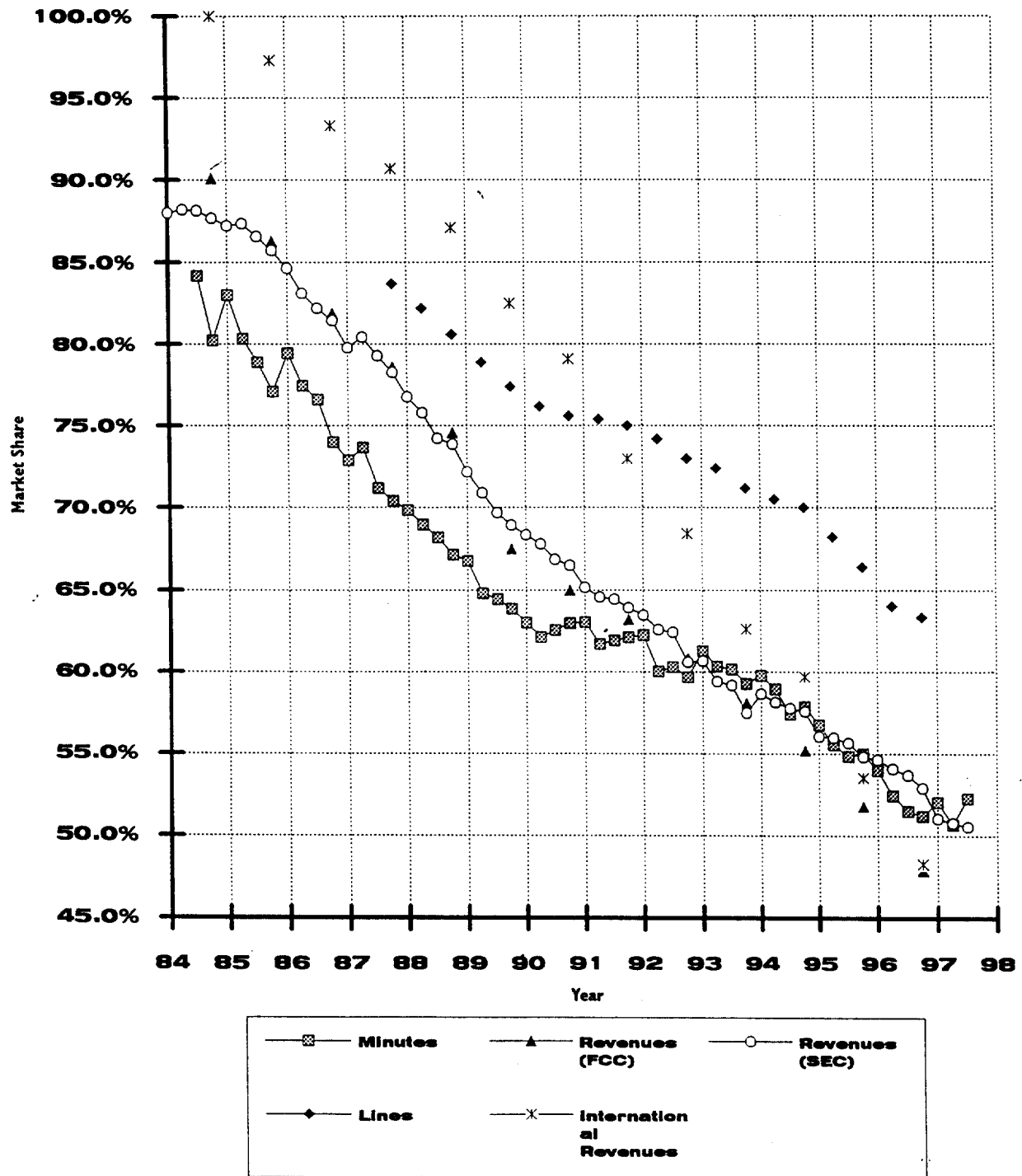


Chart A2.2 - Indicators of AT&T Market Share



APPENDIX 3: PREMIUM VS. NON-PREMIUM ACCESS MINUTES

Table A3.1 shows "premium" minutes as reported by NECA separately from "non-premium" minutes. Premium minutes consist of all carriers dial 1 access minutes in equal access areas and only AT&T's access minutes in areas where equal access is not available. Prior to AT&T's divestiture of its local operating companies in 1984, competitors were unable to obtain connections with local telephone companies that were of equal quality to those offered to AT&T. After the divestiture, local companies began to offer equal access to all long distance carriers. More than 99% of the nation's lines have now been converted to equal access. As non-equal access minutes have virtually disappeared, there is no longer any significant difference between the number of total minutes and the number of equal access minutes.

APPENDIX 3

**TABLE A3.1 - PREMIUM VS. NON-PREMIUM ACCESS MINUTES
(FIGURES SHOWN IN BILLIONS)**

	TOTAL INDUSTRY		
	PREMIUM MINUTES	NON-PREMIUM MINUTES	TOTAL MINUTES
1984 THIRD QUARTER	32.0	5.5	37.5
FOURTH QUARTER	33.6	6.0	39.6
1985 FIRST QUARTER	32.9	6.6	39.6
SECOND QUARTER	34.9	6.6	41.5
THIRD QUARTER	36.6	6.2	42.8
FOURTH QUARTER	38.0	5.3	43.3
TOTAL 1985	142.4	24.7	167.1
1986 FIRST QUARTER	38.8	4.3	43.0
SECOND QUARTER	41.0	3.8	44.8
THIRD QUARTER	43.2	3.5	46.7
FOURTH QUARTER	45.5	3.0	48.5
TOTAL 1986	168.5	14.6	183.1
1987 FIRST QUARTER	48.0	3.2	51.2
SECOND QUARTER	49.3	3.1	52.5
THIRD QUARTER	52.1	2.9	55.0
FOURTH QUARTER	54.4	2.6	57.0
TOTAL 1987	203.9	11.9	215.7
1988 FIRST QUARTER	56.6	2.4	59.0
SECOND QUARTER	57.3	2.3	59.6
THIRD QUARTER	59.8	2.3	62.1
FOURTH QUARTER	61.8	2.2	64.0
TOTAL 1988	235.4	9.2	244.6
1989 FIRST QUARTER	64.1	2.1	66.2
SECOND QUARTER	66.5	2.0	68.5
THIRD QUARTER	67.7	2.0	69.7
FOURTH QUARTER	70.7	1.9	72.6
TOTAL 1989	269.1	8.0	277.1
1990 FIRST QUARTER	72.9	1.9	74.7
SECOND QUARTER	74.0	1.8	75.8
THIRD QUARTER	76.1	1.8	77.9
FOURTH QUARTER	77.4	1.6	79.1
TOTAL 1990	300.4	7.1	307.4
1991 FIRST QUARTER	77.7	1.5	79.2
SECOND QUARTER	80.4	1.5	81.9
THIRD QUARTER	81.2	1.4	82.6
FOURTH QUARTER	83.0	1.4	84.4
TOTAL 1991	322.2	5.8	328.0
1992 FIRST QUARTER	84.5	1.2	85.6
SECOND QUARTER	85.4	1.1	86.5
THIRD QUARTER	86.8	1.0	87.9
FOURTH QUARTER	88.8	1.0	89.8
TOTAL 1992	345.5	4.2	349.7

APPENDIX 3

**TABLE A3.1 - PREMIUM VS. NON-PREMIUM ACCESS MINUTES
(FIGURES SHOWN IN BILLIONS)**

	TOTAL INDUSTRY		
	PREMIUM MINUTES	NON-PREMIUM MINUTES	TOTAL MINUTES
1993 FIRST QUARTER	89.8	0.9	90.6
SECOND QUARTER	90.4	0.8	91.2
THIRD QUARTER	92.9	0.7	93.6
FOURTH QUARTER	95.2	0.6	95.9
TOTAL 1993	368.3	3.0	371.2
1994 FIRST QUARTER	98.1	0.6	98.7
SECOND QUARTER	97.4	0.5	97.9
THIRD QUARTER	101.4	0.5	101.9
FOURTH QUARTER	102.4	0.5	102.9
TOTAL 1994	399.3	2.1	401.4
1995 FIRST QUARTER	105.1	0.4	105.6
SECOND QUARTER	106.4	0.4	106.8
THIRD QUARTER	108.6	0.4	109.0
FOURTH QUARTER	110.2	0.4	110.6
TOTAL 1995	430.3	1.6	431.9
1996 FIRST QUARTER	115.3	0.3	115.7
SECOND QUARTER	114.4	0.3	114.7
THIRD QUARTER	117.6	0.3	117.8
FOURTH QUARTER	121.9	0.3	122.2
TOTAL 1996	469.2	1.2	470.4
1997 FIRST QUARTER	122.7	0.2	122.9
SECOND QUARTER	124.6	0.2	124.8
THIRD QUARTER	125.5	0.2	125.6
FOURTH QUARTER	125.7	0.1	125.9
TOTAL 1997	498.5	0.7	499.1

The reports and underlying data described above are available in the Common Carrier Bureau's Public Reference Room, 2000 M Street, N.W., Room 575. We invite comments and suggestions for improving the methodologies and procedures used here. The report can be downloaded [file name: MKSH4Q97.ZIP] from the **FCC-State Link** internet site at <http://www.fcc.gov/ccb/stats> on the World Wide Web. The report can also be downloaded from the **FCC-State Link** computer bulletin board at (202) 418-0241. Copies of the report may be purchased by calling International Transcription Services, Inc. (ITS) at (202) 857-3800. For more information, contact James Zolniersek or Katie Rangos at (202) 418-0940.

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TRENDS IN TELEPHONE SERVICE

Industry Analysis Division
Common Carrier Bureau
Federal Communications Commission
February 1998 .



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INTRODUCTION:

Trends in Telephone Service is published by the Industry Analysis Division of the Common Carrier Bureau of the Federal Communications Commission (FCC). We have designed this report to provide answers to some of the most frequently asked questions about the telephone industry -- questions asked by consumers, members of Congress, other government agencies, telecommunications carriers, and members of the business and academic communities. To this end, the report contains summary information about the size, growth, and development of the telephone industry, including data on market shares, minutes of calling, number of lines, and telephone subscribership. The report also provides information about telephone rates and price changes, consumer expenditures for service, access charges, long distance carriers, infrastructure, universal service programs, and international telephone traffic.

Trends in Telephone Service summarizes a variety of information contained in other reports that are published periodically by the Industry Analysis Division. In most cases, these other reports give much more detailed information than that provided here. These reports can be accessed from our internet site, as indicated in the appendix to this report. In addition, to facilitate further information gathering by consumers and others, we have listed additional sources of information in the appendix.

ACCESS CHARGES:

In the 1980s the FCC, in cooperation with a Federal-State Joint Board composed of both federal and state regulators, introduced sweeping changes to the way that interstate telephone services were priced.

As recently as the early 1980s, almost all interstate long distance service continued to be provided by AT&T. AT&T, in turn, charged prices above cost for long distance calls and shared the revenues with local telephone companies through a complicated process of allocating costs and distributing revenues. From AT&T's perspective, this revenue sharing was largely internal because it owned the Bell operating companies, which provided about three-quarters of the nation's local telephone service. The transfer of revenues from long distance service was an important source of revenues to local telephone companies and reduced pressures to raise local monthly rates.

By the early 1980s, more than half of the price of a long distance call was passed back to local telephone companies. Doing so was inefficient -- suppressing the demand for long distance calls and inducing large corporations to arrange private systems that bypassed the public switched network. Moreover, while such revenue sharing arrangements were perhaps sustainable in an industry where one firm monopolized both long distance and local service, they were not compatible with a competitive long distance industry.

The historic method of sharing revenues was replaced by a new system of access charges introduced in mid-1984. Access charges provided a uniform method for local telephone companies to charge for the origination and termination of interstate traffic on their local networks. Access charges had several major elements. Monthly subscriber line charges (SLCs) were introduced to recover a portion of the costs of local telephone lines that had historically been recovered through the prices charged for interstate long distance calls. Currently, at year-end 1997, the SLC is \$6.00 monthly for most business lines and \$3.50 for most residential lines. Local telephone companies were required to reduce their charges to long distance carriers -- dollar for dollar -- as SLCs were introduced. In addition to SLCs, other access charges, generally charged on a per-minute basis, were instituted to recover other local costs.

The rebalancing of prices between local service and interstate long distance calls during the 1980s had a fundamental impact on the telephone industry as the price of long distance service fell and the volume of long distance calling surged. Average monthly SLCs are shown in Table 1.1, and average per-minute rates charged to long distance carriers are shown in Table 1.2. The per-minute access rates charged by local telephone companies are generally higher for smaller companies. The range of access rates for the last half of 1997 is shown in Table 1.3.

[illegible]

SOURCE: FEDERAL-STATE JOINT BOARD MONITORING REPORT, MAY 1997, AND ANNUAL FILINGS MADE EFFECTIVE JULY 1, 1997 AND JANUARY 1, 1998.

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TABLE 1.2

INTERSTATE CHARGES BY LOCAL TELEPHONE COMPANIES TO LONG DISTANCE CARRIERS
(National Average for Premium Service in Cents per Minute) *

Rates in Effect		Interstate Charges for Switched Access Service				
From	To	Carrier Common Line per Originating Minute*	Carrier Common Line per Terminating Minute*	Traffic Sensitive per Switched Minute	Non-Traffic Sensitive per Switched Minute	Total Charge per Conversation Minute
05/26/84	01/14/85	5.24 ¢	5.24 ¢	3.10 ¢	**	17.26 ¢
01/15/85	05/31/85	5.43	5.43	3.10	**	17.66
06/01/85	09/30/85	4.71	4.71	3.10	**	16.17
10/01/85	05/31/86	4.33	4.33	3.10	**	15.38
06/01/86	12/31/86	3.04	4.33	3.10	**	14.00
01/01/87	06/30/87	1.55	4.33	3.10	**	12.41
07/01/87	12/31/87	0.69	4.33	3.10	**	11.49
01/01/88	11/30/88	0.00	4.14	3.10	**	10.56
12/01/88	02/14/89	0.00	3.39	3.00	**	9.60
02/15/89	03/31/89	0.00	3.25	3.00	**	9.46
04/01/89	12/31/89	1.00	1.83	3.00	**	9.11
01/01/90	06/30/90	1.00	1.53	2.50	**	7.78
07/01/90	12/31/90	1.00	1.23	2.50	**	7.48
01/01/91	06/30/91	1.00	1.14	2.40	**	7.18
07/01/91	06/30/92	0.88	1.06	2.40	**	6.97
07/01/92	06/30/93	0.79	0.95	2.40	**	6.76
07/01/93	06/30/94	0.88	1.16	2.20	**	6.66
07/01/94	06/30/95	0.84	1.08	2.10	0.28 ¢	6.89
07/01/95	06/30/96	0.74	0.89	1.96	0.21	6.16
07/01/96	06/30/97	0.72	0.89	1.95	0.17	6.04
07/01/97	12/31/97	0.64	0.84	1.74	0.11	5.26
01/01/98	06/30/98	0.70	0.26	1.34	0.57	4.92

SOURCE: FEDERAL-STATE JOINT BOARD MONITORING REPORT, MAY 1997 AND FILINGS MADE EFFECTIVE JULY 1, 1997 AND JANUARY 1, 1998.

* These rates are the average of price cap and NECA pool companies. Revenues of these companies comprise approximately 95% of the industry total. The rates are weighted averages of the carriers. Carrier common line (CCL) charges are weighted by CCL minutes. The other access charges are weighted by local switching minutes.

** Included with other traffic sensitive charges.

TABLE 1.3
AVERAGE ACCESS RATE PER MINUTE BY CARRIER
(Price-Cap Companies and NECA)

Company *	Rates Effective January 1, 1998				Total Charge per Conversation Minute **	1996 Minutes of Use (Millions)		
	Originating Carrier Common Line	Terminating Carrier Common Line	Switched Traffic Sensitive	Switched Non-Traffic Sensitive		CCL Originating	CCL Terminating	Local Switching
Ameritech	\$0.0042	\$0.0002	\$0.011800	\$0.006004	\$0.0411	17,976	29,724	47,719
Bell Atlantic	0.0037	0.0000	0.009400	0.004980	0.0334	23,188	43,657	66,989
Bell South	0.0129	0.0025	0.010300	0.005882	0.0495	26,849	40,621	67,941
NYNEX	0.0067	0.0005	0.019800	0.005428	0.0594	20,870	32,812	54,597
Pacific Telesis	0.0001	0.0000	0.009100	0.006736	0.0324	12,028	22,981	36,243
Southwestern	0.0019	0.0000	0.012900	0.006435	0.0416	14,251	24,099	38,736
U S West	0.0006	0.0000	0.012800	0.007354	0.0419	16,746	35,325	52,362
GTE	0.0160	0.0129	0.014800	0.004951	0.0706	17,471	27,200	45,257
Alliant	0.0004	0.0000	0.017000	0.006832	0.0493	232	434	670
Frontier	0.0113	0.0022	0.016500	0.006594	0.0616	825	1,465	2,299
Southern New England	0.0048	0.0000	0.015700	0.004802	0.0473	3,069	4,804	7,882
Sprint Local Tel. Cos.	0.0120	0.0061	0.012900	0.004836	0.0553	8,006	11,983	20,277
Citizens	0.0237	0.0223	0.015400	0.008834	0.0972	1,065	1,251	2,355
Cincinnati Bell	0.0062	0.0002	0.010600	0.004618	0.0380	1,030	1,684	2,717
NECA	0.0100	0.0150	0.042200	0.001800	0.1167	10,887	12,281	12,452
Total Minutes						174,495	290,322	458,497
Average CCL Rates Weighted by Minutes	\$0.0070	\$0.0026	\$0.013400	\$0.005700	\$0.0492			

SOURCE: FEDERAL-STATE JOINT BOARD MONITORING REPORT, MAY 1997, AND ANNUAL FILINGS EFFECTIVE JANUARY 1, 1998. CCL MINUTES FOR PACIFIC TELESIS AND US WEST ARE FROM 1996 ARMIS 43-01 REPORTS FILED AT THE COMMISSION.

* Rates are the composites of all regions and subsidiaries of each local exchange carrier.

** This column equals 107% of the originating CCL rate + 100% of the terminating CCL rate + 107% of the traffic sensitive (for originating access) + switched traffic sensitive (for originating access) + 100% of non-traffic sensitive rates (for terminating access)*2.

CELLULAR TELEPHONE SERVICE:

The Federal Communications Commission licenses cellular telephone companies but does not impose reporting requirements on the cellular industry. The Cellular Telecommunications Industry Association periodically publishes summary information on the industry, a selection of which is shown in Tables 2.1 and 2.2.

The cellular industry has grown dramatically. Table 2.1 shows that there were 92,000 subscribers in 1984, as compared to 49 million as of June 1997. As seen in Table 2.2, the industry's annual revenues rose from less than \$1 billion in 1984 to over \$20 billion in 1996, and for the first six months of 1997 were approximately \$13 billion. The table also shows that the industry employed 97,039 employees as of June 1997, as compared to 1,404 in 1984, and that there was a significant drop in the average monthly bill from \$96.83 at the end of 1987 to \$43.86 in mid-1997.

TABLE 2.1
CELLULAR TELEPHONE SUBSCRIBERS

		NUMBER OF SYSTEMS	SUBSCRIBERS
1984	DECEMBER	32	91,600
1985	JUNE	65	203,600
	DECEMBER	102	340,213
1986	JUNE	129	500,000
	DECEMBER	166	681,825
1987	JUNE	206	883,778
	DECEMBER	312	1,230,855
1988	JUNE	420	1,608,697
	DECEMBER	517	2,069,441
1989	JUNE	559	2,691,793
	DECEMBER	584	3,508,944
1990	JUNE	592	4,368,686
	DECEMBER	751	5,283,055
1991	JUNE	1,029	6,390,053
	DECEMBER	1,252	7,557,148
1992	JUNE	1,483	8,892,535
	DECEMBER	1,506	11,032,753
1993	JUNE	1,523	13,067,318
	DECEMBER	1,529	16,009,461
1994	JUNE	1,550	19,283,506
	DECEMBER	1,581	24,134,421
1995	JUNE	1,581	28,154,415
	DECEMBER	1,627	33,785,661
1996	JUNE	1,629	38,195,466
	DECEMBER	1,740	44,042,992
1997	JUNE	2,005	48,705,553

SOURCE: CELLULAR TELECOMMUNICATIONS INDUSTRY ASSOCIATION.